

What is claimed is:

1. A grafted antibody, or functional fragment thereof, comprising one or more complementarity determining regions (CDRs) having at least one amino acid substitution in one or more CDRs of a heavy chain CDR selected from the group consisting of SEQ ID NOS:26, 28 and 30 or a light chain CDR selected from the group consisting of SEQ ID NOS:20, 22 and 24, said grafted antibody or functional fragment thereof having specific binding activity for a cryptic collagen epitope.

2. An antibody, or functional fragment thereof, comprising one or more CDRs selected from the group consisting of CDRs referenced as SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, and SEQ ID NO:162, said antibody or functional fragment thereof having specific binding activity for a cryptic collagen epitope.

3. The antibody of claim 2, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:26; a heavy chain CDR2 referenced as SEQ ID NO:28; a heavy chain CDR3  
5 referenced as SEQ ID NO:63; a light chain CDR1 referenced as SEQ ID NO:20; a light chain CDR2 referenced as SEQ ID NO:22; and a light chain CDR3 referenced as SEQ ID NO:77.

4. The antibody of claim 2, wherein said antibody, or functional fragment thereof, comprises a  
10 heavy chain CDR1 referenced as SEQ ID NO:26; a heavy chain CDR2 referenced as SEQ ID NO:28; a heavy chain CDR3 referenced as SEQ ID NO:63; a light chain CDR1 referenced as SEQ ID NO:72; a light chain CDR2 referenced as SEQ ID NO:22; and a light chain CDR3 referenced as SEQ ID NO:77.

15 5. The antibody of claim 2, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:26; a heavy chain CDR2 referenced as SEQ ID NO:48; a heavy chain CDR3 referenced as SEQ ID NO:63; a light chain CDR1 referenced  
20 as SEQ ID NO:20; a light chain CDR2 referenced as SEQ ID NO:22; and a light chain CDR3 referenced as SEQ ID NO:77.

6. The antibody of claim 2, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:45; a heavy  
25 chain CDR2 referenced as SEQ ID NO:154; a heavy chain CDR3 referenced as SEQ ID NO:63; a light chain CDR1 referenced as SEQ ID NO:157; a light chain CDR2 referenced as SEQ ID NO:22; and a light chain CDR3 referenced as SEQ ID NO:77.

7. The antibody of claim 2, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:26; a heavy chain CDR2 referenced as SEQ ID NO:155; a heavy chain  
5 CDR3 referenced as SEQ ID NO:63; a light chain CDR1 referenced as SEQ ID NO:158; a light chain CDR2 referenced as SEQ ID NO:22; and a light chain CDR3 referenced as SEQ ID NO:77.

8. The antibody of claim 2, wherein said  
10 antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:46; a heavy chain CDR2 referenced as SEQ ID NO:155; a heavy chain CDR3 referenced as SEQ ID NO:63; a light chain CDR1 referenced as SEQ ID NO:159; a light chain CDR2  
15 referenced as SEQ ID NO:22; and a light chain CDR3 referenced as SEQ ID NO:77.

9. The antibody of claim 2, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:26; a heavy  
20 chain CDR2 referenced as SEQ ID NO:48; a heavy chain CDR3 referenced as SEQ ID NO:63; a light chain CDR1 referenced as SEQ ID NO:160; a light chain CDR2 referenced as SEQ ID NO:22; and a light chain CDR3 referenced as SEQ ID NO:77.

10. The antibody of claim 2, wherein said  
25 antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:45; a heavy chain CDR2 referenced as SEQ ID NO:155; a heavy chain CDR3 referenced as SEQ ID NO:63; a light chain CDR1 referenced as SEQ ID NO:72; a light chain CDR2 referenced

as SEQ ID NO:22; and a light chain CDR3 referenced as SEQ ID NO:77.

11. The antibody of claim 2, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:26; a heavy chain CDR2 referenced as SEQ ID NO:155; a heavy chain CDR3 referenced as SEQ ID NO:63; a light chain CDR1 referenced as SEQ ID NO:157; a light chain CDR2 referenced as SEQ ID NO:22; and a light chain CDR3 referenced as SEQ ID NO:77.

12. The antibody of claim 2, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:45; a heavy chain CDR2 referenced as SEQ ID NO:155; a heavy chain CDR3 referenced as SEQ ID NO:63; a light chain CDR1 referenced as SEQ ID NO:160; a light chain CDR2 referenced as SEQ ID NO:22; and a light chain CDR3 referenced as SEQ ID NO:77.

13. The antibody of claim 2, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:46; a heavy chain CDR2 referenced as SEQ ID NO:155; a heavy chain CDR3 referenced as SEQ ID NO:63; a light chain CDR1 referenced as SEQ ID NO:160; a light chain CDR2 referenced as SEQ ID NO:22; and a light chain CDR3 referenced as SEQ ID NO:77.

14. The antibody of claim 2, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:45; a heavy

chain CDR2 referenced as SEQ ID NO:162; a heavy chain CDR3 referenced as SEQ ID NO:63; a light chain CDR1 referenced as SEQ ID NO:158; a light chain CDR2 referenced as SEQ ID NO:22; and a light chain CDR3  
5 referenced as SEQ ID NO:77.

15. The antibody of claim 2, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:45; a heavy chain CDR2 referenced as SEQ ID NO:156; a heavy chain  
10 CDR3 referenced as SEQ ID NO:63; a light chain CDR1 referenced as SEQ ID NO:157; a light chain CDR2 referenced as SEQ ID NO:22; and a light chain CDR3 referenced as SEQ ID NO:77.

16. The antibody of claim 2, wherein said  
15 antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:26; a heavy chain CDR2 referenced as SEQ ID NO:154; a heavy chain CDR3 referenced as SEQ ID NO:63; a light chain CDR1 referenced as SEQ ID NO:157; a light chain CDR2  
20 referenced as SEQ ID NO:22; and a light chain CDR3 referenced as SEQ ID NO:77.

17. The antibody of claim 2, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:45; a heavy  
25 chain CDR2 referenced as SEQ ID NO:155; a heavy chain CDR3 referenced as SEQ ID NO:63; a light chain CDR1 referenced as SEQ ID NO:157; a light chain CDR2 referenced as SEQ ID NO:22; and a light chain CDR3 referenced as SEQ ID NO:77.

18. The antibody of claim 2, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:46; a heavy chain CDR2 referenced as SEQ ID NO:154; a heavy chain  
5 CDR3 referenced as SEQ ID NO:63; a light chain CDR1 referenced as SEQ ID NO:161; a light chain CDR2 referenced as SEQ ID NO:22; and a light chain CDR3 referenced as SEQ ID NO:77.

19. The antibody of claim 2, wherein said  
10 antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:46; a heavy chain CDR2 referenced as SEQ ID NO:156; a heavy chain CDR3 referenced as SEQ ID NO:63; a light chain CDR1 referenced as SEQ ID NO:161; a light chain CDR2  
15 referenced as SEQ ID NO:22; and a light chain CDR3 referenced as SEQ ID NO:77.

20. The antibody of claim 2, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:46; a heavy  
20 chain CDR2 referenced as SEQ ID NO:28; a heavy chain CDR3 referenced as SEQ ID NO:63; a light chain CDR1 referenced as SEQ ID NO:20; a light chain CDR2 referenced as SEQ ID NO:22; and a light chain CDR3 referenced as SEQ ID NO:77.

21. An antibody, or functional fragment  
25 thereof, comprising a heavy chain polypeptide comprising one or more CDRs having at least one amino acid substitution in one or more heavy chain CDRs, said heavy chain CDRs selected from the group consisting of a heavy chain CDR1 selected from the group consisting of CDRs  
30 referenced as SEQ ID NOS:26, 43, 44, 45, 46, and 47; a

heavy chain CDR2 selected from the group consisting of CDRs referenced as SEQ ID NOS:28, 48, 49, 50, 51, 52, 53, 54, and 55; and a heavy chain CDR3 selected from the group consisting of CDRs referenced as SEQ ID NOS:30, 56,  
5 57, 58, 59, 60, 61, 62, 63, and 64, said antibody or functional fragment thereof having specific binding activity for a cryptic collagen epitope.

22. An antibody, or functional fragment thereof, comprising a light chain polypeptide comprising  
10 one or more CDRs having at least one amino acid substitution in one or more light chain CDRs, said light chain CDRs selected from the group consisting of a light chain CDR1 selected from the group consisting of CDRs referenced as SEQ ID NOS:20, 65, 66, 67, 68, 69, 70, 71,  
15 72, 73, 74, 75, and 76; a light chain CDR2 referenced as SEQ ID NO:22.; and a light chain CDR3 selected from the group consisting of CDRs referenced as SEQ ID NOS:24, 77, 78, 79, 80, 81, 82, 83, 84, 85, and 86, said antibody or functional fragment thereof having specific binding  
20 activity for a cryptic collagen epitope.

23. A grafted antibody, or functional fragment thereof, comprising one or more complementarity determining regions (CDRs) having at least one amino acid substitution in one or more CDRs of a heavy chain CDR  
25 selected from the group consisting of SEQ ID NOS:38, 40 and 42 or a light chain CDR selected from the group consisting of SEQ ID NOS:32, 34 and 36, said grafted antibody or functional fragment thereof having specific binding activity for a cryptic collagen epitope.

24. An antibody, or functional fragment thereof, comprising one or more CDRs selected from the group consisting of CDRs referenced as SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153 and SEQ ID NO:358, said antibody or functional fragment thereof having specific binding activity for a cryptic collagen epitope.

25. The antibody of claim 24, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:38; a heavy chain CDR2 referenced as SEQ ID NO:40; a heavy chain CDR3 referenced as SEQ ID NO:103; a light chain CDR1 referenced as SEQ ID NO:32; a light chain CDR2 referenced as SEQ ID NO:34; and a light chain CDR3 referenced as SEQ ID NO:36.



26. The antibody of claim 24, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:38; a heavy chain CDR2 referenced as SEQ ID NO:92; a heavy chain CDR3  
5 referenced as SEQ ID NO:103; a light chain CDR1 referenced as SEQ ID NO:32; a light chain CDR2 referenced as SEQ ID NO:34; and a light chain CDR3 referenced as SEQ ID NO:130.

27. The antibody of claim 24, wherein said  
10 antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:147; a heavy chain CDR2 referenced as SEQ ID NO:92; a heavy chain CDR3 referenced as SEQ ID NO:103; a light chain CDR1 referenced as SEQ ID NO:149; a light chain CDR2  
15 referenced as SEQ ID NO:34; and a light chain CDR3 referenced as SEQ ID NO:130.

28. The antibody of claim 24, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:147; a heavy  
20 chain CDR2 referenced as SEQ ID NO:92; a heavy chain CDR3 referenced as SEQ ID NO:103; a light chain CDR1 referenced as SEQ ID NO:150; a light chain CDR2 referenced as SEQ ID NO:34; and a light chain CDR3 referenced as SEQ ID NO:130.

29. The antibody of claim 24, wherein said  
25 antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:147; a heavy chain CDR2 referenced as SEQ ID NO:93; a heavy chain CDR3 referenced as SEQ ID NO:103; a light chain CDR1  
30 referenced as SEQ ID NO:149; a light chain CDR2

referenced as SEQ ID NO:34; and a light chain CDR3  
referenced as SEQ ID NO:130.

30. The antibody of claim 24, wherein said  
antibody, or functional fragment thereof, comprises a  
5 heavy chain CDR1 referenced as SEQ ID NO:147; a heavy  
chain CDR2 referenced as SEQ ID NO:144; a heavy chain  
CDR3 referenced as SEQ ID NO:103; a light chain CDR1  
referenced as SEQ ID NO:149; a light chain CDR2  
referenced as SEQ ID NO:34; and a light chain CDR3  
10 referenced as SEQ ID NO:130.

31. The antibody of claim 24, wherein said  
antibody, or functional fragment thereof, comprises a  
heavy chain CDR1 referenced as SEQ ID NO:147; a heavy  
chain CDR2 referenced as SEQ ID NO:93; a heavy chain CDR3  
15 referenced as SEQ ID NO:103; a light chain CDR1  
referenced as SEQ ID NO:151; a light chain CDR2  
referenced as SEQ ID NO:34; and a light chain CDR3  
referenced as SEQ ID NO:130.

32. The antibody of claim 24, wherein said  
20 antibody, or functional fragment thereof, comprises a  
heavy chain CDR1 referenced as SEQ ID NO:147; a heavy  
chain CDR2 referenced as SEQ ID NO:92; a heavy chain CDR3  
referenced as SEQ ID NO:103; a light chain CDR1  
referenced as SEQ ID NO:151; a light chain CDR2  
25 referenced as SEQ ID NO:34; and a light chain CDR3  
referenced as SEQ ID NO:130.

33. The antibody of claim 24, wherein said  
antibody, or functional fragment thereof, comprises a  
heavy chain CDR1 referenced as SEQ ID NO:147; a heavy

chain CDR2 referenced as SEQ ID NO:93; a heavy chain CDR3  
referenced as SEQ ID NO:103; a light chain CDR1  
referenced as SEQ ID NO:152; a light chain CDR2  
referenced as SEQ ID NO:34; and a light chain CDR3  
5 referenced as SEQ ID NO:358.

34. The antibody of claim 24, wherein said  
antibody, or functional fragment thereof, comprises a  
heavy chain CDR1 referenced as SEQ ID NO:148; a heavy  
chain CDR2 referenced as SEQ ID NO:93; a heavy chain CDR3  
10 referenced as SEQ ID NO:103; a light chain CDR1  
referenced as SEQ ID NO:150; a light chain CDR2  
referenced as SEQ ID NO:34; and a light chain CDR3  
referenced as SEQ ID NO:130.

35. The antibody of claim 24, wherein said  
15 antibody, or functional fragment thereof, comprises a  
heavy chain CDR1 referenced as SEQ ID NO:147; a heavy  
chain CDR2 referenced as SEQ ID NO:93; a heavy chain CDR3  
referenced as SEQ ID NO:103; a light chain CDR1  
referenced as SEQ ID NO:115; a light chain CDR2  
20 referenced as SEQ ID NO:34; and a light chain CDR3  
referenced as SEQ ID NO:130.

36. The antibody of claim 24, wherein said  
antibody, or functional fragment thereof, comprises a  
heavy chain CDR1 referenced as SEQ ID NO:147; a heavy  
25 chain CDR2 referenced as SEQ ID NO:40; a heavy chain CDR3  
referenced as SEQ ID NO:103; a light chain CDR1  
referenced as SEQ ID NO:153; a light chain CDR2  
referenced as SEQ ID NO:34; and a light chain CDR3  
referenced as SEQ ID NO:130.

37. The antibody of claim 24, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:147; a heavy chain CDR2 referenced as SEQ ID NO:92; a heavy chain CDR3  
5 referenced as SEQ ID NO:103; a light chain CDR1 referenced as SEQ ID NO:116; a light chain CDR2 referenced as SEQ ID NO:34; and a light chain CDR3 referenced as SEQ ID NO:130.

38. The antibody of claim 24, wherein said  
10 antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:147; a heavy chain CDR2 referenced as SEQ ID NO:93; a heavy chain CDR3 referenced as SEQ ID NO:103; a light chain CDR1 referenced as SEQ ID NO:116; a light chain CDR2  
15 referenced as SEQ ID NO:34; and a light chain CDR3 referenced as SEQ ID NO:130.

39. The antibody of claim 24, wherein said antibody, or functional fragment thereof, comprises a heavy chain CDR1 referenced as SEQ ID NO:38; a heavy  
20 chain CDR2 referenced as SEQ ID NO:93; a heavy chain CDR3 referenced as SEQ ID NO:103; a light chain CDR1 referenced as SEQ ID NO:32; a light chain CDR2 referenced as SEQ ID NO:34; and a light chain CDR3 referenced as SEQ ID NO:130.

25 40. An antibody, or functional fragment thereof, comprising a heavy chain polypeptide comprising one or more CDRs having at least one amino acid substitution in one or more heavy chain CDRs, said heavy chain CDRs selected from the group consisting of a heavy  
30 chain CDR1 selected from the group consisting of CDRs

referenced as SEQ ID NOS:38, 87, 88, 89, 90, 91, 147 and 148; a heavy chain CDR2 selected from the group consisting of CDRs referenced as SEQ ID NOS:40, 92, 93, 94, 95 and 144; and a heavy chain CDR3 selected from the group consisting of CDRs referenced as SEQ ID NOS:42, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108 and 109, said antibody or functional fragment thereof having specific binding activity for a cryptic collagen epitope.

41. An antibody, or functional fragment thereof, comprising a light chain polypeptide comprising one or more CDRs having at least one amino acid substitution in one or more light chain CDRs, said light chain CDRs selected from the group consisting of a light chain CDR1 selected from the group consisting of CDRs referenced as SEQ ID NOS:32, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 146, 149, 150, 151, 152 and 153; a light chain CDR2 referenced as SEQ ID NOS:34, 120, 121, 122, 123, 124 and 125; and a light chain CDR3 selected from the group consisting of CDRs referenced as SEQ ID NOS:36, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 145 and 358, said antibody or functional fragment thereof having specific binding activity for a cryptic collagen epitope.

42. The grafted antibody of any of claims 1-41, wherein said functional fragment is selected from the group consisting of Fv, Fab, F(ab)<sub>2</sub> and scFV.

43. A nucleic acid encoding the antibody of any of claims 1-41.

44. A method of targeting angiogenic vasculature, comprising administering an antibody, or functional fragment thereof, said antibody or functional fragment thereof comprising one or more complementarity  
5 determining regions (CDRs) having at least one amino acid substitution in one or more CDRs of a heavy chain CDR selected from the group consisting of SEQ ID NOS:26, 28 and 30 or a light chain CDR selected from the group consisting of SEQ ID NOS:20, 22 and 24, and said antibody  
10 or functional fragment thereof having specific binding activity for a cryptic collagen epitope.

45. The method of claim 44, wherein said antibody or functional fragment comprises one or more CDRs selected from the group consisting of CDRs  
15 referenced as SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61,  
20 SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85,  
25 SEQ ID NO:86, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, and SEQ ID NO:162.

46. The method of claim 44, wherein said  
30 antibody, or functional fragment thereof, further comprises a therapeutic moiety.

47. The method of claim 44, wherein said antibody, or functional fragment thereof, further comprises a detectable moiety.

48. A method of inhibiting angiogenesis,  
5 comprising administering an antibody, or functional  
fragment thereof, said antibody or functional fragment  
thereof comprising one or more complementarity  
determining regions (CDRs) having at least one amino acid  
substitution in one or more CDRs of a heavy chain CDR  
10 selected from the group consisting of SEQ ID NOS:26, 28  
and 30 or a light chain CDR selected from the group  
consisting of SEQ ID NOS:20, 22 and 24, and said antibody  
or functional fragment thereof having specific binding  
activity for a cryptic collagen epitope.

15 49. The method of claim 48, wherein said  
antibody or functional fragment comprises one or more  
CDRs selected from the group consisting of CDRs  
referenced as SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45,  
SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49,  
20 SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53,  
SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57,  
SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61,  
SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65,  
SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69,  
25 SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73,  
SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77,  
SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81,  
SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85,  
SEQ ID NO:86, SEQ ID NO:154, SEQ ID NO:155, SEQ ID  
30 NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ  
ID NO:160, SEQ ID NO:161, and SEQ ID NO:162.

50. The method of claim 48, wherein said antibody, or functional fragment thereof, further comprises a therapeutic moiety.

51. A method of targeting a tumor, comprising  
5 administering an antibody, or functional fragment thereof, said antibody or functional fragment thereof comprising one or more complementarity determining regions (CDRs) having at least one amino acid substitution in one or more CDRs of a heavy chain CDR  
10 selected from the group consisting of SEQ ID NOS:26, 28 and 30 or a light chain CDR selected from the group consisting of SEQ ID NOS:20, 22 and 24, and said antibody or functional fragment thereof having specific binding activity for a cryptic collagen epitope.

15 52. The method of claim 51, wherein said antibody or functional fragment comprises one or more CDRs selected from the group consisting of CDRs referenced as SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49,  
20 SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69,  
25 SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:154, SEQ ID NO:155, SEQ ID  
30 NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, and SEQ ID NO:162.



53. The method of claim 51, wherein said antibody, or functional fragment thereof, further comprises a therapeutic moiety.

54. The method of claim 51, wherein said  
5 antibody, or functional fragment thereof, further comprises a detectable moiety.

55. A method of inhibiting tumor growth, comprising administering an antibody, or functional fragment thereof, said antibody or functional fragment  
10 thereof comprising one or more complementarity determining regions (CDRs) having at least one amino acid substitution in one or more CDRs of a heavy chain CDR selected from the group consisting of SEQ ID NOS:26, 28 and 30 or a light chain CDR selected from the group  
15 consisting of SEQ ID NOS:20, 22 and 24, and said antibody or functional fragment thereof having specific binding activity for a cryptic collagen epitope.

56. The method of claim 55, wherein said antibody or functional fragment comprises one or more  
20 CDRs selected from the group consisting of CDRs referenced as SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57,  
25 SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77,  
30 SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81,

SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85,  
 SEQ ID NO:86, SEQ ID NO:154, SEQ ID NO:155, SEQ ID  
 NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ  
 ID NO:160, SEQ ID NO:161, and SEQ ID NO:162.

5           57. The method of claim 55, wherein said  
 antibody, or functional fragment thereof, further  
 comprises a therapeutic moiety.

58. A method of detecting angiogenic  
 vasculature, comprising contacting angiogenic vasculature  
 10 with an antibody, or functional fragment thereof, said  
 antibody or functional fragment thereof comprising one or  
 more complementarity determining regions (CDRs) having at  
 least one amino acid substitution in one or more CDRs of  
 a heavy chain CDR selected from the group consisting of  
 15 SEQ ID NOS:26, 28 and 30 or a light chain CDR selected  
 from the group consisting of SEQ ID NOS:20, 22 and 24,  
 and said antibody or functional fragment thereof having  
 specific binding activity for a cryptic collagen epitope.

59. The method of claim 58, wherein said  
 20 antibody or functional fragment comprises one or more  
 CDRs selected from the group consisting of CDRs  
 referenced as SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45,  
 SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49,  
 SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53,  
 25 SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57,  
 SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61,  
 SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65,  
 SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69,  
 SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73,  
 30 SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77,

SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81,  
SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85,  
SEQ ID NO:86, SEQ ID NO:154, SEQ ID NO:155, SEQ ID  
NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ  
5 ID NO:160, SEQ ID NO:161, and SEQ ID NO:162.

60. The method of claim 58, wherein said  
antibody, or functional fragment thereof, further  
comprises a detectable moiety.

61. A method of inhibiting metastasis,  
10 comprising administering an antibody, or functional  
fragment thereof, said antibody or functional fragment  
thereof comprising one or more complementarity  
determining regions (CDRs) having at least one amino acid  
substitution in one or more CDRs of a heavy chain CDR  
15 selected from the group consisting of SEQ ID NOS:26, 28  
and 30 or a light chain CDR selected from the group  
consisting of SEQ ID NOS:20, 22 and 24, and said antibody  
or functional fragment thereof having specific binding  
activity for a cryptic collagen epitope.

20 62. The method of claim 61, wherein said  
antibody or functional fragment comprises one or more  
CDRs selected from the group consisting of CDRs  
referenced as SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45,  
SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49,  
25 SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53,  
SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57,  
SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61,  
SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65,  
SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69,  
30 SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73,

SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77,  
 SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81,  
 SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85,  
 SEQ ID NO:86, SEQ ID NO:154, SEQ ID NO:155, SEQ ID  
 5 NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ  
 ID NO:160, SEQ ID NO:161, and SEQ ID NO:162.

63. The method of claim 61, wherein said  
 antibody, or functional fragment thereof, further  
 comprises a therapeutic moiety.

10 64. A method of targeting angiogenic  
 vasculature, comprising administering an antibody, or  
 functional fragment thereof, said antibody or functional  
 fragment thereof comprising one or more complementarity  
 determining regions (CDRs) having at least one amino acid  
 15 substitution in one or more CDRs of a heavy chain CDR  
 selected from the group consisting of SEQ ID NOS:38, 40  
 and 42 or a light chain CDR selected from the group  
 consisting of SEQ ID NOS:32, 34 and 36, said grafted  
 antibody or functional fragment thereof having specific  
 20 binding activity for a cryptic collagen epitope.

65. The method of claim 64, wherein said  
 antibody or functional fragment comprises one or more  
 CDRs selected from the group consisting of CDRs  
 referenced as SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89,  
 25 SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93,  
 SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97,  
 SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101,  
 SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID  
 NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ  
 30 ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112,

SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID  
NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ  
ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123,  
SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID  
5 NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ  
ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134,  
SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID  
NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ  
ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145,  
10 SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID  
NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ  
ID NO:153 and SEQ ID NO:358.

66. The method of claim 64, wherein said  
antibody, or functional fragment thereof, further  
15 comprises a therapeutic moiety.

67. The method of claim 64, wherein said  
antibody, or functional fragment thereof, further  
comprises a detectable moiety.

68. A method of inhibiting angiogenesis,  
20 comprising administering an antibody, or functional  
fragment thereof, said antibody or functional fragment  
thereof comprising one or more complementarity  
determining regions (CDRs) having at least one amino acid  
substitution in one or more CDRs of a heavy chain CDR  
25 selected from the group consisting of SEQ ID NOS:38, 40  
and 42 or a light chain CDR selected from the group  
consisting of SEQ ID NOS:32, 34 and 36, said grafted  
antibody or functional fragment thereof having specific  
binding activity for a cryptic collagen epitope.

69. The method of claim 68, wherein said antibody or functional fragment comprises one or more CDRs selected from the group consisting of CDRs referenced as SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153 and SEQ ID NO:358.

70. The method of claim 68, wherein said antibody, or functional fragment thereof, further comprises a therapeutic moiety.

71. A method of targeting a tumor, comprising administering an antibody, or functional fragment thereof, said antibody or functional fragment thereof comprising one or more complementarity determining regions (CDRs) having at least one amino acid substitution in one or more CDRs of a heavy chain CDR

selected from the group consisting of SEQ ID NOS:38, 40 and 42 or a light chain CDR selected from the group consisting of SEQ ID NOS:32, 34 and 36, said grafted antibody or functional fragment thereof having specific  
5 binding activity for a cryptic collagen epitope.

72. The method of claim 71, wherein said antibody or functional fragment comprises one or more CDRs selected from the group consisting of CDRs referenced as SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89,  
10 SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ  
15 ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID  
20 NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145,  
25 SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153 and SEQ ID NO:358.

73. The method of claim 71, wherein said antibody, or functional fragment thereof, further  
30 comprises a therapeutic moiety.

74. The method of claim 71, wherein said antibody, or functional fragment thereof, further comprises a detectable moiety.

75. A method of inhibiting tumor growth,  
5 comprising administering an antibody, or functional fragment thereof, said antibody or functional fragment thereof comprising one or more complementarity determining regions (CDRs) having at least one amino acid substitution in one or more CDRs of a heavy chain CDR  
10 selected from the group consisting of SEQ ID NOS:38, 40 and 42 or a light chain CDR selected from the group consisting of SEQ ID NOS:32, 34 and 36, said grafted antibody or functional fragment thereof having specific binding activity for a cryptic collagen epitope.

15 76. The method of claim 75, wherein said antibody or functional fragment comprises one or more CDRs selected from the group consisting of CDRs referenced as SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93,  
20 SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112,  
25 SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ  
30 ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID



NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ  
 ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145,  
 SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID  
 NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ  
 5 ID NO:153 and SEQ ID NO:358.

77. The method of claim 75, wherein said  
 antibody, or functional fragment thereof, further  
 comprises a therapeutic moiety.

78. A method of detecting angiogenic  
 10 vasculature, comprising contacting angiogenic vasculature  
 with an antibody, or functional fragment thereof, said  
 antibody or functional fragment thereof comprising one or  
 more complementarity determining regions (CDRs) having at  
 least one amino acid substitution in one or more CDRs of  
 15 a heavy chain CDR selected from the group consisting of  
 SEQ ID NOS:38, 40 and 42 or a light chain CDR selected  
 from the group consisting of SEQ ID NOS:32, 34 and 36,  
 said grafted antibody or functional fragment thereof  
 having specific binding activity for a cryptic collagen  
 20 epitope.

79. The method of claim 78, wherein said  
 antibody or functional fragment comprises one or more  
 CDRs selected from the group consisting of CDRs  
 referenced as SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89,  
 25 SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93,  
 SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97,  
 SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101,  
 SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID  
 NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ  
 30 ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112,

SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID  
 NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ  
 ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123,  
 SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID  
 5 NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ  
 ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134,  
 SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID  
 NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ  
 ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145,  
 10 SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID  
 NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ  
 ID NO:153 and SEQ ID NO:358.

80. The method of claim 78, wherein said  
 antibody, or functional fragment thereof, further  
 15 comprises a detectable moiety.

81. A method of inhibiting tumor growth,  
 comprising administering an antibody, or functional  
 fragment thereof, said antibody or functional fragment  
 thereof comprising one or more complementarity  
 20 determining regions (CDRs) having at least one amino acid  
 substitution in one or more CDRs of a heavy chain CDR  
 selected from the group consisting of SEQ ID NOS:38, 40  
 and 42 or a light chain CDR selected from the group  
 consisting of SEQ ID NOS:32, 34 and 36, said grafted  
 25 antibody or functional fragment thereof having specific  
 binding activity for a cryptic collagen epitope.

82. The method of claim 81, wherein said  
 antibody or functional fragment comprises one or more  
 CDRs selected from the group consisting of CDRs  
 30 referenced as SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89,

SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93,  
SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97,  
SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101,  
SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID  
5 NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ  
ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112,  
SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID  
NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ  
ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123,  
10 SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID  
NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ  
ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134,  
SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID  
NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ  
15 ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145,  
SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID  
NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ  
ID NO:153 and SEQ ID NO:358.

83. The method of claim 81, wherein said  
20 antibody, or functional fragment thereof, further  
comprises a therapeutic moiety.